

New York State Comprehensive Emergency Management Plan

Extreme Heat Annex



**Disaster Preparedness
Commission**

**Prepared by the New York State
Disaster Preparedness Commission**

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List of Plan Revisions

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Foreword

On September 23, 2022, NYS Governor Kathy Hochul signed Legislation S.8431-A/A.10001-B. The purpose of this legislation is to direct a study focused on the protection of disadvantaged communities from the dangers of extreme heat. The Governor stated:

“Extreme heat threatens the lives and welfare of many New Yorkers each year, but particularly those in disadvantaged communities and communities of color. As we round out Climate Week, we are taking steps to address extreme heat and combat climate change. This study will put us on a path toward protecting New Yorkers and making the state a healthier, more sustainable place to live for future generations.”

Section I: General Considerations and Planning Guidelines

A. Introduction

The State of New York experiences a wide variety of severe weather that may cause devastating short- and long-term social, economic, public health, animal health/welfare, and infrastructural impacts on the State. Extreme heat is generally defined as any temperature above 10 °Fahrenheit (F) or 12.2 ° Celsius (C) above the average temperature that lingers for prolonged periods. The definition, however, can vary by region. According to New York City, “NYC’s Risk Landscape: A Guide to Hazard Mitigation” for example, constitutes an extreme heat as one or more consecutive days of a heat index of 100 °F (37.7°C) and higher or 95 °F (35 °C) and higher for two or more consecutive days.¹

Section I of the Annex covers some of the basic elements and background to the planning effort.

Due to climate change, extreme heat events are a growing concern for New York State and are projected to increase in severity, duration, and frequency over time as seen in Figure 1. In a study conducted by the United States Environmental Protection Agency (EPA), the Earth’s temperature has risen by 0.14 °F (17.7 °C) per decade since 1880. Additionally, the rate of warming since 1981 has more than doubled, at a rate of 0.34 °F (17.6 °C) per decade.

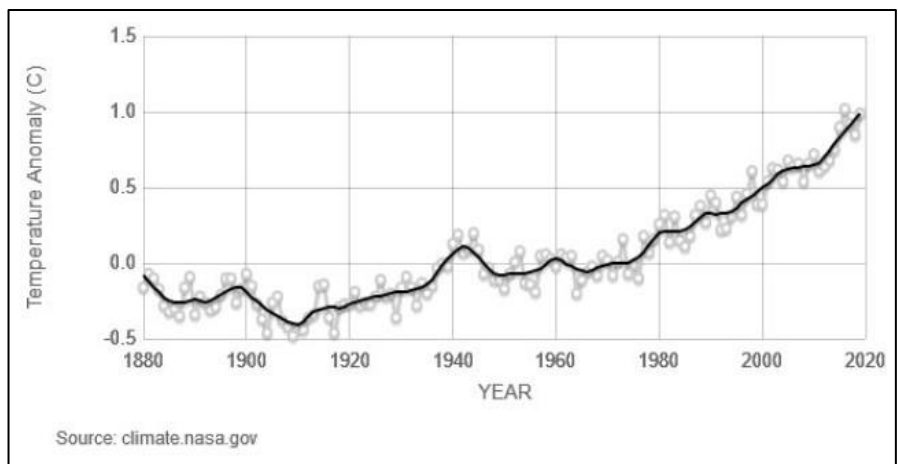


Figure 1: Average Earth Temperature from 1880-2020
Source: Climate.nasa.gov

New York State leadership recognizes the threat that extreme heat can cause to the State and has taken actions to mitigate this threat. During the 2022 State of the State address, Governor Kathy Hochul advanced a State directive to develop a statewide extreme heat action plan. The plan’s initiatives include a focus on the protection of disadvantaged communities and additional New Yorkers who are vulnerable to the effects of extreme heat, both human and non-human, through the coordination of interagency investments. Disadvantaged communities as defined on the NYSERDA.ny.gov website are communities that bear burdens of negative public-health effects, environmental pollution, impacts of climate change, and possess certain socioeconomic criteria, or comprise high concentrations of low- and moderate-income households.² This Annex outlines New

¹ NYC. “NYC’s Risk Landscape: A Guide to Hazard Mitigation”

https://www.nyc.gov/assets/em/downloads/pdf/hazard_mitigation/nycs_risk_landscape_a_guide_to_hazard_mitigation_final.pdf as accessed in June 2023.

² <https://www.nyserdanyc.gov/All-Programs/Clean-Energy-Workforce-Development-and-Training/Resources/Definitions#:~:text=%E2%80%9CDisadvantaged%20Communities%E2%80%9D%20are%20communities%20that,%2D%20and%20moderate%20income%20households>

as accessed in June 2023.

York State’s strategy in preparing for, responding to, and recovering from an extreme heat event in a collective, multi-agency State approach.

B. Purpose

The State Comprehensive Emergency Management Plan (State CEMP) has been structured into three distinct, but interconnected volumes. These are:

- Volume 1: All-Hazard Mitigation Plan
- Volume 2: Response and Short-Term Recovery
- Volume 3: Long-Term Recovery Plan

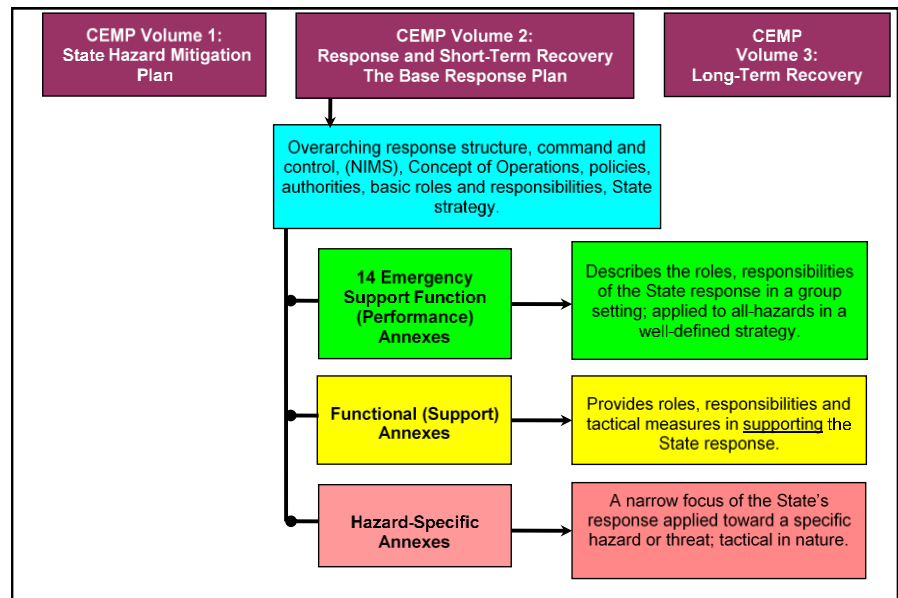


Figure 2: Structural Relationship of the State Comprehensive Emergency Management Plan and Annexes.

Figure 2 identifies the structural relationship between the State CEMP, its annexes, and the Extreme Heat Annex. In reviewing, note the linkage to other documents that fall under Volume 2. Additionally, several other documents exist in the State CEMP to support a response to the event.

The Purpose describes what the Annex is for, the linkage to other plans, and where it fits into the State’s cadre of plans.

The purpose of the State CEMP is to identify the State’s overarching policies, authorities, and organizational structure that will be implemented in an emergency or disaster situation that warrants a State response. In addition, the State CEMP identifies the lines of coordination and the centralized coordination of resources that will be utilized in directing the State’s resources and capabilities in responding to and recovering from a disaster. Further, the State CEMP serves as the foundational framework for the State’s response levels and serves as the operational basis of which other functional and hazard-specific annexes are built upon.

The purpose of this Annex is to ensure that the strategic and broad-based nature of the State CEMP is more defined to allow the State to adequately prepare for, respond to, and recover from an extreme heat event. This will include utilizing individual agency activities, as well as the activities of the State’s Emergency Support Functions (ESFs), as warranted.

The Scope identifies what the plan applies to; and what it does not. This leaves no room for misinterpreting the spirit and intent of the Annex.

C. Scope

In 2022, the State Department of Environmental Conservation (DEC) and the New York State Energy Research and Development Authority (NYSERDA) convened the Extreme Heat Action Plan Work Group (EHAPWG), comprised of 22 State agencies including the Division of Homeland Security and

Emergency Services (DHSES), the Department of Health (DOH), and the Thruway Authority (TA). As a result of the work group, the Extreme Heat Action Plan (EHAP) Interim Recommendations Report was developed. The Report uses an in-depth and comprehensive Whole-of-Government approach to assist applicable stakeholders in addressing the impacts of extreme heat on vulnerable communities across the State. The intent was to provide immediate and provisional action recommendations to prepare for and respond efficiently to an extreme heat event. This EHAP was developed from directives outlined in the 2022 State of the State address and highlights the need for the Emergency Heat Annex as part of the CEMP. This recommendation is found on page 12 of the Extreme Heat Action Plan Interim Recommendations Report under “P2. Initiate process to develop a heat hazard annex.”³

This Annex applies to any extreme heat weather condition that warrants a response beyond standard agency statutory obligations to a collective State Disaster Preparedness Commission (DPC) response. This Annex applies to all State agencies and authorities that may be directed to respond to such an event and builds upon the process and structure of the State CEMP by addressing unique policies, situations, operating concepts, and responsibilities.

The State response is not solely determined by the issuance of a heat advisory, excessive heat warning, or an excessive heat watch from the National Weather Service (NWS), but they are key tools for informed decision making. Heat advisories are issued if a heat index of between 95 °F (35 °C) and 104 °F (40 °C) for a minimum of 2 hours are forecasted. Excessive heat warnings are issued if a heat index of at least 105 °F (40.6 °C) for more than two hours, or heat index more than 115 °F (46.1 °C) for any period are forecasted. Excessive heat watches use the same criteria as an extreme warning but are usually issued 1 to 2 days in advance of an incident. Unnamed heat events that do not classify within the above outlined categories are not considered an extreme heat event and local jurisdictions should use discretion in declaring an extreme heat event.

D. Situation

Extreme heat has been occurring in New York State throughout history. The warmest months of the year typically occur in July and August. However, extreme heat has been observed as early as June and as late as September. The longest heat wave on New York State record occurred in 1953 between August 24th and September 4th with 12 consecutive days with temperature ranging from 92-102°F (33.3-38.9 °C).⁴ Even more recently, in July 2022, six consecutive days of heat between 90-97°F (32.2-36.1 °C). were experienced.

The Situation Section

identifies the potential impacts and conditions of an extreme heat event informed by research of past events and outline potential future impacts in a credible, worst-case scenario. This research leads to *Planning*

Assumptions, which serve as the technical basis of what needs to be planned for.

³ DEC & NYSEDA, “Extreme Heat Action Plan Interim Recommendations Report” (2022), https://www.dec.ny.gov/docs/administration_pdf/ehapinterimrecommendationsreport.pdf accessed June 2023.

⁴Gwynne Hogan “National Weather Service projects longest heat wave in nearly a decade, as NYC electrical grid strains” <https://gothamist.com/news/national-weather-service-projects-longest-heat-wave-in-14-years-as-nyc-electrical-grid-strains> accessed June 2023.

Extreme heat can have detrimental effects on health, particularly for vulnerable populations. For the purpose of this Annex, those who are considered vulnerable are the elderly, infants, and children, individuals participating in outdoor athletic activities, individuals with pre-existing or chronic illnesses, pregnant women, low-income households, outdoor workers, and those who are taking certain medications. Some of the most common heat-related illnesses consist of respiratory issues, loss of consciousness, heat cramps,

heat exhaustion, and in extreme cases, heat stroke or death. In the United States, extreme heat has continued to be the leading weather-related cause of death for approximately 30 years, as seen in figure 3. According to the EPA, from 1979-2018 approximately 11,000 people lost their lives due to heat-related illnesses. These effects on the human population may indirectly lead to a strain on mass care/public health services such as hospitals, nursing homes, and shelters and increase the need for cooling centers or other options for public relief activities due to increased demand.

Extreme heat may also have a negative effect on the farming/agriculture industry as well as other environmental, energy, and natural resources. Extreme heat exposure can lead to reduced quality and lower yield in agricultural crops, increased livestock illness and death rates, and unsafe working conditions for farm workers. For example, in June 2022 nearly 2,000 livestock died due to extreme heat in Kansas. Additionally, extreme heat can lead to or exacerbate a drought condition causing, in some cases, wildland fires. Extreme heat and long, dry spells may create conditions for rockfalls/landslides. There may be a risk of flash flooding if the extreme conditions create a warm and moist atmosphere which propagate severe thunderstorms and heavy rainfall.

Critical infrastructure that society relies on can be severely impacted by extreme heat. This consists of concerns for the energy system including electrical grid, nuclear power plants, and impacts to transportation. In order to escape the negative effects of extreme heat, a large majority of private residences and other buildings use some sort of cooling system whether it be central air conditioning or a simple window unit. The increased demand caused by the use of these systems, can lead to a strain on the power grid that may lead to damage to electrical components, blackouts, and reduced efficiency for systems such as generator units and hydroelectric systems. Nuclear power plants, particularly ones built along lakes or rivers, may also be at risk of temporarily shutting down if water levels drop too low or if the water becomes too warm, not allowing it to cool the plant properly. New York State's transportation infrastructure may be impacted in various ways.

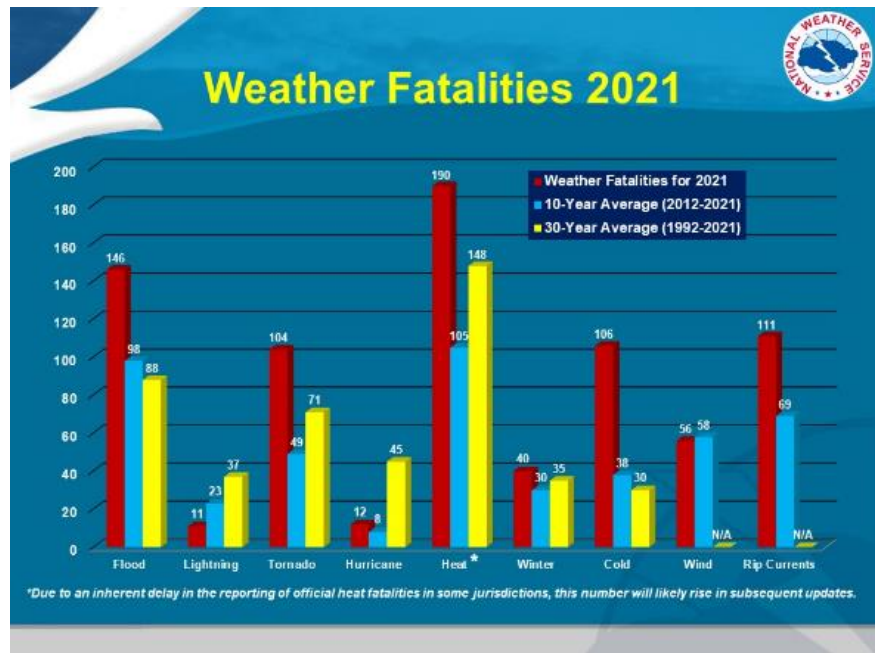


Figure 3: Weather Related Fatality Statistics, 1992-2021
Source: <https://www.weather.gov/hazstat/>

Expansion joints on bridges and highways may weaken and show signs of stress creating rutting and potholes, warping of railroad tracks increasing the likelihood of a train derailment, and buckling and melting of asphalt and tarmac on public roads and airports. Powerlines may begin to overheat and sag over roadways causing hazardous conditions and outages.

The effects outlined above may be even more profound in urban areas including, but not limited to, New York, Buffalo, Yonkers, Rochester, Syracuse, and Albany due to the Urban Heat Island Effect. The EPA defines urban heat islands as an occurrence when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. Urban areas tend to have a larger population density and may affect a higher number of people than in rural areas.

E. Planning Assumptions

- This Annex will not be implemented in response to routine summer weather. Implementation of this Annex will be considered in situations where extreme heat advisories are promulgated and may be accompanied by significant kinetic impacts to people and/or the infrastructure.
- An extreme heat event is a unique emergency that may take on significant political, social, and economic dimensions.
- An extreme heat event may affect several critical infrastructure sectors, both public and private.
- An extreme heat event will likely occur with some warning, may last days to weeks, and may result in an increase in mortality rates several days from the onset of the event.
- Susceptibility to extreme heat will vary from person to person. The effects will likely be more dramatic in children, individuals participating in outdoor athletic activities, the elderly both in elder care facilities and those living in their own home, individuals with underlying medical conditions, pregnant women, those taking certain medication, low-income households, disadvantaged communities, unhoused populations, those with limited mobility, Individuals not proficient in the English language and those that work outdoors. It is also important to consider those who are non-US citizens, as they may not have access to critical resources or are hesitant to seek existing resources due to perceived risks.
- Individuals living in certain institutional settings (e.g. those in the criminal justice system in the custody of the State or those in congregate care setting such as mental health facilities) may require additional preventative measures and emergency response measures.
- State assistance will serve as a supplement to local actions and will typically be made after local resources are exhausted.
- Resources allocated under this Annex will be those items not available at the local level because they were never available to the locality, have been exhausted in response to the emergency, or are not accessible within the time frame of the applicable emergency. These may include contractual services.
- One or more local entities, such as county health departments also known as local health departments, may declare a public health emergency in response to a disaster and the State may be called upon to assist. Chief elected officials of counties, villages, cities, towns have the authority under Article 2-B to declare a local State of Emergency independently or in concert with public health emergencies.
- In the event of a major response and recovery operation, the State may be required to assist local governments by providing distribution facilities for commodities such as ice, water, etc.

and personnel to manage these facilities. Communication assets may be deployed to assist with facility operations.

- In the event of a pandemic and/or other regional/community/widespread communicable disease outbreak occurring concurrently with an extreme heat event, congregate locations such as cooling centers, may not be an appropriate option or may require changes in the delivery of services.
- In the event that multiple incidents are occurring concurrently such as thunderstorms or other adverse weather that may compound the negative effects of extreme heat, a larger response may be warranted. This may include an increase of State EOC Activation levels.
- State agencies supporting this Annex may have offices that are impacted by extreme heat and may need to operate from an alternate facility as identified in their agency-specific continuity of operations plan (COOP).

The Concept of Operations identifies the anticipated sequence of events in response to notice of an event that warrants plan implementation and activation of the State EOC.

F. Concept of Operations

1. Initial identification of a forecasted extreme heat condition will be identified through continuous monitoring of meteorological conditions potentially impacting the State. Monitoring activities are performed routinely by the NWS and Local Weather Forecast Office, State Office of Emergency Management (State OEM), DEC, DOH, and local emergency management offices.
2. Upon initial notification of an extreme heat event from the NWS, State OEM Leadership may direct the State Watch Center (SWC) and/or the Operations Section to initiate monitoring activities of the conditions, heat intensity, electrical grid impact such as power outage numbers, and projected duration. Similar monitoring activities and meteorological support functions will likely be performed by the DEC.
3. As the threat to New York State increases, State OEM may conduct additional outreach to the NWS Weather Forecast Offices to obtain more insight as to the potential of an extreme heat event.
4. If warranted, State OEM may facilitate additional outreach and coordination to State agencies to advise agencies and State ESF coordinating agencies of the situation.
5. If a coordinated state response is anticipated, the State OEM will initiate Multi-Agency Coordination (MAC) conference calls with relevant state agencies, led by the DHSES Commissioner, State OEM Director, or a designee.
6. If conditions warrant the activation of the State EOC, State OEM may notify the appropriate DPC agencies representative and will include the activation of some of the State's ESFs.
7. The State OEM will coordinate response activities in support of a MAC Group, being cognizant of response operations at the local level. Such response operations will be coordinated in the State EOC with the activated ESFs as well as OEM field staff who may be embedded in regional ROCs or county EOCs. Some support efforts may include assistance with cooling centers, and the deployment of state assets or personnel.
8. The Governor could exercise gubernatorial authority in declaring a State Disaster Emergency. Upon the declaration of a State Disaster Emergency, the Governor may direct any and all State agencies, including non-DPC agencies, to provide assistance under the coordination of the DPC.

9. State assistance will be supplemental to local efforts. Support may include providing security, public health, and emergency medical support, providing human needs support including distribution of supplies such as water, and public information.

G. Legal Authorities

The authority to develop this Annex and implement specific response actions to effectively respond can be found in a variety of New York State Laws and regulations including:

State Authorities/Policies (web links active as of 5/30/23)

- New York State Constitution: <https://dos.ny.gov/system/files/documents/2022/01/Constitution-January-1-2022.pdf>.
- New York State Executive Law, Article 2-B (4/1/79), as amended: <https://www.nysenate.gov/legislation/laws/EXC/A2-B>.
- Executive Order # 26.1 of 2006, as amended (NYS Adoption of the Incident Command System): https://www.governor.ny.gov/sites/default/files/atoms/files/EO_26.1.pdf.
- Extreme Heat Action Plan Initiative as instructed by the Governor: https://www.dec.ny.gov/docs/administration_pdf/ehapinterimrecommendationsreport.pdf accessed.
- Senate Bill S8431A approved by the Governor: <https://www.nysenate.gov/legislation/bills/2021/S8431>.

Plan Maintenance, Updating, and Revision Process

The State OEM Planning Section has the responsibility for the development, review, and maintenance of all multi-agency response plans under the New York State CEMP. As required under New York State Executive Law Article 2-B, each annex shall undergo an annual review and update on or before February 15th of each year and be posted online (if applicable) no later than March 31st of each year.

During the annual review by the Planning Section for its material, this Annex is examined for both content and format. For updates that do not impact operational mechanisms or processes, the appropriate edits are initiated within the Planning Section and do not warrant external involvement. Plan updates will also be conducted based upon experiences and lessons learned from exercises or real-world events, or through administrative changes in government. Planning Section updates and/or edits affecting operational capabilities, responsibilities, or otherwise impacting operations will engage stakeholders in a variety of ways, such as verbally, by document review, meetings, webinars, or any combination thereof. Final drafts will be socialized to all appropriate agencies/personnel upon completion.

Section II: Preparedness

A. Preparedness

Extreme heat events are a complex issue that cannot be prevented. However, a variety of risk reduction measures can be implemented to lessen the effects of these events and make the community more prepared for such an event. These measures include societal improvements, planning and coordination, training and exercise, community partnerships, and placing an emphasis on assisting disadvantaged communities.

The Preparedness Section

identifies current efforts to mitigate the effects of an extreme heat event in NYS, where applicable. This includes efforts that are applicable across a broad range of hazards, and those germane to an extreme heat event.

Additionally, to better understand how an extreme heat event may affect New York State, the Community Lifeline program has been integrated into this plan. Federal Emergency Management Agency (FEMA) developed the program in early 2019. The Lifelines are defined as the most fundamental services in the community that, when stabilized, enable all other aspects of society to function. The Community Lifelines include Safety and Security, Food/Water/Shelter, Health and Medical, Energy, Communication, Transportation and Hazardous Waste, shown below in figure 4. During an extreme heat event, situational information can be assessed from the status and extent of impact that community lifelines that are affected. This information can help to shape where response efforts may be needed.



Figure 4: Community Lifelines - National Response Framework (2019)

B. Planning and Coordination

State and Local Emergency Heat Planning and Mitigation Efforts

Volume 1 of the State CEMP is the State Multi-Hazard Mitigation Plan. According to the requirements of 44 CFR 201.4, the State Multi-Hazard Mitigation Plan is required to focus on natural hazards that are likely to cause a substantial impact to the State. Therefore, a focus of the mitigation plan includes addressing emergency heat events that may impact the State. Within the mitigation plan includes hazard profiles, a list of mitigation measures that can be taken to reduce or eliminate long-term risk to natural hazards, and a table of mitigation actions to be addressed within a five-year timeframe. Numerous counties and their participating municipalities have developed multi-jurisdictional hazard mitigation plans that pinpoint extreme heat as a hazard of concern.

State and Local Emergency Heat Programs

New York State has committed investments to existing programs to tackle the threat of extreme heat on the State. The State has provided funding for the New York State Homes and Community Renewal (HCR) *Weatherization Assistance Program*, the *State Home Energy Assistance Program (HEAP)*, the Department of Public Service's (DPS) *Energy Affordability Program*, the New York Power Authority's (NYPA) *LMI Heat Pump Program*, and the NYSERDA's *Clean Heat Development Plan* to address safe housing and affordable cooling. Additionally, programs that

increase the construction of green infrastructure such as the DEC's *Community Forest Grant*, *Trees for Tribes*, *Urban Forestry*, *Green Innovation Grant*, and *Regenerate New York* programs, the NYPA's *Tree Planting Program*, the State Department of Agriculture and Markets' (DAM) *Urban Agriculture and Community Gardens Grant Program* and the State Supplemental Nutrition Assistance Program Education's (SNAP-Ed NY) *Community Growers Grant Program* have all received funds from the State as well.

Various State agencies have utilized their websites, television ads, and print and social media platforms to disseminate information about extreme heat to the public and key stakeholders. The State DOH has created County Heat and Health Profile Reports for each county outside NYC to describe county temperature trends and heat-related health effects, identify areas with populations at highest vulnerability to heat, and list available adaptation resources. Moreover, the DOH developed Heat Vulnerability Index (HVI) maps for each county, excluding New York City⁵, and HVI maps for the State as a whole⁶. Additional State agencies including but not limited to the DEC and the DHSES have sections in their websites that educate the public on key terminology, heat health hazards, what to do during an extreme heat event, and additional tips on energy conservation during times of extreme heat. Several State agencies including the DOH and the Office for the Aging (NYSOFA) utilize social media to communicate information about weather-related emergency preparation measures, the risks of extreme heat, and steps to reduce these risks as well as to provide links to additional resources.

Counties and municipalities across the State have developed and implemented plans and programs that address emergency heat vulnerabilities, impacts, and response. New York City, for example, has executed *Cool Neighborhoods NYC* which focuses on strategically implementing the *Cool It! NYC*, *Be a Buddy NYC*, *NYC CoolRoofs* programs and the implementation of fire hydrant recreational spray caps to combat extreme heat risks in vulnerable communities, increase the amount of cooling features available to the public during heat emergencies, and provide paid training and work experience for installing energy-saving reflective rooftops. Furthermore, there are free outdoor pools and spray showers located throughout New York City that the public can utilize during emergency heat events. The *Save the Rain Program* in Onondaga County has allowed for the development of hundreds of green infrastructure projects throughout the county such as vegetative roof tops with benefits including reduction of heat island effects. Individual town, village, city, and county governments may also develop mutual aid agreements, as appropriate.

Educational tools and resources have been created and heavily utilized on the local level. The New York City Office of Emergency Management (NYCEM) produced a cooling center finder website⁷ to help the public find cooling centers in New York City and created *Beat the Heat*⁸ to provide key definitions and information to the public about how to stay cool and help neighbors in need during extreme heat events. The NYS DOH has a similar tool called the Cooling Center Finder Tool

⁵ The DOH, "County Heat Vulnerability Maps" (2017), https://www.health.ny.gov/environmental/weather/vulnerability_index/county_maps.htm accessed June 2023.

⁶ The DOH, "NY State Heat Vulnerability Index Maps" (2017), https://www.health.ny.gov/environmental/weather/vulnerability_index/nys_maps.htm accessed June 2023.

⁷ The NYCEM, "Cooling Center Finder", <https://maps.nyc.gov/cooling-center/inactive.html?1671549300000> accessed June 2023.

To note, the NYCEM cooling center finder website is an active season link.

⁸ The NYCEM, "Beat the Heat", <https://www1.nyc.gov/assets/em/html/beat-the-heat/beattheheat.html> accessed June 2023.

located on the agency's website. Moreover, county departments/agencies throughout the State provide information on their websites pertaining to the impacts of heat exposure on vulnerable populations, heat-related illnesses, actions to take during an emergency heat event, and cooling center locations.

C. Policy and Legislation

On September 23, 2022, NYS Governor Kathy Hochul signed Legislation S.8431-A/A.10001-B. This Legislation specifically directs the DEC, in consultation with the Environmental Justice Interagency Coordinating Council, and the Climate Justice Working Group, to study the impacts of urban heat islands in disadvantaged communities. The study will identify the disadvantaged communities who are impacted by extreme heat. Additionally, the study included recommendations on how to identify, prevent, mitigate, and address adverse health, and environmental impacts from urban heat islands. Potential funding to address these impacts shall also be identified. These disproportionate heat conditions, also known as urban heat islands, are specifically relevant in disadvantaged communities.

Policy and Legislation are the pillar of this planning effort, directing plan development for extreme heat.

D. Tests, Training, and Exercise

The State of New York sponsors and conducts a variety of training to improve response capability. The State develops and delivers specialized training, including training to meet federal program and grant requirements. Some State agencies may also identify training requirements within their own organization to meet the needs of the agency during periods of extreme heat.

The State of New York has incorporated the Homeland Security Exercise and Evaluation Program (HSEEP). HSEEP consists of both doctrine and policy for designing, developing, conducting, and evaluating exercises. It is a threat-and-performance-based exercise program that includes a cycle, mix, and range of exercise activities of varying degrees of complexity and interaction. HSEEP is also a program of financial and direct support designed to assist state and local governments with the development of a state exercise and evaluation program.

The exercise component can be used to test the effectiveness of a plan. These exercises often vary in scope and cross several State-level plans or annexes. These exercises should provide valuable input into plan development and help to ensure that the plan is effective in its scope and application.

E. Community Partnerships and Disadvantaged Communities

There are a variety of ways that the risks associated with extreme heat can be reduced in the disadvantaged communities. Outside of the public sector, there are many volunteer and other community-based organizations that can be utilized to provide services and support to otherwise hard-to-reach groups, while building and investing in community capacities. The interim recommendations provide insight into collaborating with community-based organizations. Various New York State agencies provide resources, tools, and programs aimed at

New York State agencies have existing programs to help disadvantaged communities leverage mitigation opportunities.

assisting disadvantaged communities as well as enhancing community knowledge about energy efficiency. These agencies are:

New York State Department of Health (DOH)

DOH may assist disadvantaged communities by collecting information about seasonal cooling centers. This information can be found using DOH's Cooling Center Finder Tool located on the agency's website.

New York State Office of Mental Health (OMH)

OMH provides information regarding the health risks associated with individuals who take certain psychiatric medication when exposed to the harmful effects of extreme heat. OMH provides information about the potential adverse symptoms a person taking these medications may face and provides ways to mitigate them.

New York State Energy Research and Development Authority (NYSERDA)

NYSERDA largely supports community-based organizations with the goal of helping people learn about clean heating and cooling systems. This goal is supported by the various programs NYSERDA offers.

- Regional Clean Energy Hubs Program
 - This program provides information to individuals, small businesses, and affordable housing owners about clean energy, ways to reduce costs, and how to make more informed energy decisions.
- Clean Heating and Cooling Communities Campaign
 - This campaign provides no-cost support and information about switching to clean and efficient heat pump systems that also serve as cooling systems.
- Climate Justice Fellowship Program
 - This program seeks applicants who can provide professional development training/mentoring to individuals currently residing in disadvantaged communities. These applicants would work within organizations and businesses that promote climate justice and clean energy priorities for disadvantaged communities.
- Affordable Multi-Family Energy Efficiency Program
 - This program offers incentives for the installation of energy efficient equipment and technology affordable to multifamily buildings with five or more units. This can reduce energy usage and lower maintenance costs.

New York State Office of Temporary and Disability Assistance (OTDA)

- Home Energy Assistance Program (HEAP)
 - HEAP is a program that can help eligible New Yorkers cool their homes by providing financial support based on a family's living situation.
- Cooling Assistance Benefit
 - The Cooling Assistance Benefit provides financial support for eligible families by providing them with the purchase and installation of one air conditioner or fan.

New York State Division of Homes and Community Renewal (HCR)

- Weatherization Assistance Program
 - o This program assists income-eligible homeowners by reducing heating and cooling costs through energy-conservation measures, while also addressing health and safety issues in their homes.

F. Energy Conservation

In addition to the negative impacts outlined in the Situation Section of this Annex, during extreme heat the demand on the energy infrastructure is greater due to increased use of Heating, Ventilation, and Air Conditioning (HVAC) units leading to a strain that can ultimately cause larger problems. Heat not only increases demand but can also damage and strain components of the electrical grid, reduce the efficiency of electric generating units, and reduce the amount of hydroelectric power available. In order to mitigate this risk, there are several measures that can be taken. Older HVAC units use much more energy and are much less efficient than newer models. Encouraging the use of newer more efficient units may decrease the stress on the energy sector and reduce the risk of, in extreme cases, widespread black outs. Renters and homeowners are encouraged to turn up the thermostat when no one is at a residence as well as insulating doors and windows to reduce the amount of time an air conditioning (AC) unit is actively utilized on a daily basis. Several programs have been put in place in order to entice citizens of New York to use conserve energy during an extreme heat event. The EmPower New York Program, organized by NYSEERDA, provides no-cost energy efficiency solutions to income-eligible New Yorkers. This program connects eligible people with a contractor who would assess their homes and determine if they may benefit from free energy upgrades. Similar to EmPower New York, the Assisted Home Performance with ENERGY STAR Program helps eligible homeowners to lower their energy bills by providing an energy cost discount as well as giving homeowners the opportunity to work with a contractor who can identify energy efficiency upgrades to reduce areas where a home may be wasting energy.

Section III: Response

A. Alert and Notification

The State EOC maintains a readiness posture, while performing normal day-to-day operations, and conducts surveillance and monitoring of any potential emergency. Numerous sources such as the SWC, the NWS, and other notable weather tracking websites are utilized to surveil the potential for an emergency heat event.

Should the NWS issue a heat advisory, excessive heat watch, or an excessive heat warning that identifies the potential for an emergency heat event to directly impact New York State, the SWC will provide an initial notice to State agencies and counties of the potential of an emergency heat event.

B. Activation

Summer day-time heating is a common occurrence in the weather. As such, short-term heat advisories are issued on relatively frequent basis and usually have little or no impact. Those events are routine in nature, and do not warrant implementation of this Annex.

Alert, Notification, and Activation are the steps to implement a collective, multi-agency State response. The platform and use of a MAC call, activation levels, and ESFs is included across all plans – the exception is that for this plan, key ESFs are dialed into this specific event.

Upon receipt of a notice of a potential or actual extreme weather event by the NWS that can have significant consequences on people or the infrastructure, State OEM leadership will determine if the situation warrants the implementation of this Annex and activation of the State EOC.

State EOC personnel will assess the potential needs and demands of the incident, and then determine the level of activation necessary to effectively manage the response to the incident. The capabilities that are needed to support the incident are also identified, and agencies are notified to staff the State EOC using the ESF construct. Some factors to consider include current and expected temperatures, estimated precipitation as well as humidity, geographic region of an event (suburbs, urban, and disadvantaged areas, mixed impacts therefore impacting public messaging for groups), resource availability, other events which may increase populations being impacted (mass gatherings, civil unrest, etc.), and infrastructure status.

Flexibility will be key in activating the State EOC and associated ESFs. Not all incidents are the same, and not all activations will require the full list of agencies to support the demands of the incident. Therefore, the representation of agencies that will be necessary to support the ESF construct may vary from incident to incident. The CEMP identifies four activation levels of the State EOC.

NYS EOC Activation Levels

Steady State

Level 4 – Enhanced Monitoring

Level 3 – Partial Activation

Level 2 – Full Activation

Level 1 – Full State/Federal Response

In the event an extreme heat event warrants the activation of the State EOC, response levels are used to provide the appropriate level of posture, oversight, and coordination to effectively and efficiently respond to the event. These activation levels include the following:

Level 4 Enhanced Monitoring: A potential or limited event that has some indicators that warrant extra attention, enhanced monitoring, or external communication.

State OEM may initiate Enhanced Monitoring through the SWC. In some cases, ESF #5: Information and Planning, may be activated to provide additional situational reporting and analysis. ESF #7: Logistics may be activated to prepare stockpiles and personnel for mobilization and deployment.

It is at this point DPS may initiate the NYS Demand Response Reduction Program, where State agencies would initiate actions to conserve energy and reduce demand on the power grid or may take measures to prevent heat-related consequences. These measures may include:

Risk Communications
are a demonstrated past practice in an attempt to conserve energy that will be in high demand during a prolonged extreme heat event. Agencies are encouraged to do this internally and with their regulated community.

- Risk Communication:
 - The Office of General Services (OGS) may implement an advisory for State office buildings to limit power use.
 - The same could be implemented by the Department of Corrections and Community Supervision (DOCCS) to reduce energy use within DOCCS facilities.
 - SUNY may also implement energy reduction in classrooms and public buildings.
 - Agencies may issue advisories to keep personnel safe, such as consuming more drinking water, take more breaks, or limiting time outdoors during peak heating hours.
 - Disseminate risk communications to congregate or institutional settings to mitigate and recognize the early signs of heat-related illnesses.
 - Provide information to employees and the public to recognize the signs and symptoms of heat-related illnesses.

Level 3 Partial Activation: If an extreme heat event has indicators that it may have the potential to impact public health, the State EOC may be activated with one or more Emergency Support Functions (ESFs).

- If not previously fully activated during Enhanced Monitoring, ESF #5: Information and Planning and ESF #7: Logistics
- ESF # 6: Mass Care, Emergency Assistance, Housing, and Human Services
- ESF # 8: Public Health and Medical Services
- ESF #12: Energy
- ESF #15: External Affairs

Level 2 Full Activation: If an extreme heat event has indicators that it may be prolonged or have the potential to impact the infrastructure or the agricultural community, the State EOC may be activated with one or more Emergency Support Functions (ESFs).

- ESF #1: Transportation
- ESF #4: Firefighting
- ESF #11: Food and Agriculture

Agencies and ESFs that are activated in support of this type of event will collectively utilize the resources available to them pertinent to the operation. Agencies and ESFs may be tasked to take on additional roles outside of the scope of their ESFs, which are outlined in the Response Agency Roles and Responsibilities. In doing so, State agencies should coordinate with local government agencies to identify and meet the needs of the affected community.

C. Response Organization

In the event of an extreme heat emergency that requires the response of multiple State agencies and ESFs, the response will be organized using one response organization. As required by Executive Order 26.1 of 2006 and Homeland Security Presidential Directive-5 (HSPD-5), New York State is responsible for ensuring the implementation of the Incident Command System (ICS) and the National Incident Management System (NIMS) as the framework for all emergency response situations. State OEM executive staff may organize a MAC call to establish an understanding of response strategies. ESF #5: Information and Planning and ESF #7: Logistics would operate under the Command and General Staff positions. The remaining State ESFs will be situated organizationally in the Operations Section and report to the Operations Section Chief. The overall structure of the State's response is outlined in the State CEMP Volume 2: *Response and Short-Term Recovery*.

D. Response Agency Roles and Responsibilities

This section reviews roles, responsibilities, and capabilities that the State could employ to respond to an extreme heat event. ESF Coordinating Agencies will manage all activities within the ESF to effectively respond to the demands of the incident. The ESF Member Agencies will assist and support all activities tasked to the ESF. These actions and the agencies identified to support them could be expanded or reduced, as necessary.

ESF #1: Transportation

The mission of ESF #1 is to coordinate resource support and assistance for the State's transportation systems and infrastructure during an event of incident response, which includes all modes of transportation that may be impacted. Overall, ESF #1 is responsible for transportation response, information and planning, debris clearance, damage assessments, restoration of transportation infrastructure, and management of the ATIGs. The mission of ESF #1 also includes air operations support which is managed by the Air Operations Branch. ESF #1 may be able to assist with the following:

- Repair or accommodate for electrical interruptions that may alter or decrease electric-dependent services for traffic lights that are on the State System, subways, and rail.
- Utilize public messaging via Portable Variable Message Signs (PVMS) on roadways to ensure the community is made aware of the extreme heat event and risks associated with it.
- Aviation impacts
 - Monitor aviation impacts for Republic Airport and traffic delays related to local and out of region excessive-heat issues.
- Provide guidance for rerouting of traffic in and around affected areas.

ESF Roles and

Responsibilities bring the collective response capabilities in a multi-agency setting. ESFs have been implemented many times during emergencies. The roles are listed here in numerical order - reference to lifelines where appropriate.

- Assess and support restoration of potential damages from heat that may result in closures and require emergency repairs to roads and bridges.
- Support local response activities, such as debris clearance and barriers.

ESF #2: Communications

ESF #2 can assist in facilitating restoration of critical communications infrastructure, facilitate the stabilizations of systems and applications, and coordinate communications support to response efforts. Extreme heat can affect the communications infrastructure in many ways, especially if the power grid goes down. This ESF may be activated if the status of the Communications Lifeline begins to decline. ESF #2 may be able to assist with the following:

- Provide a coordinated effort to restore and supplement public emergency communications, including support to the 911 emergency calling system and public safety answering points (PSAPs).
- Gather and analyze communications system data through the Communications Assets Survey and Mapping (CASM) tool which will assist with identifying gaps in interoperability and improve emergency response communications.
- Monitor and maintain intragroup coordination from both a physical proximity and a technological standpoint by monitoring the deployment, staging, ready state, or inactive status of communication stockpiles, supplies, and specialized equipment.
- Coordinate and facilitate commercial communications infrastructure restoration with private sector.
- Coordinate and facilitate public safety land mobile radio communications infrastructure restoration with State and local governments or through private contractors.
- Coordinate the implementation of the Mutualink Memorandum of Understanding (MOA) and the Frequency Sharing agreements, as required, to support the response.
- Monitor outages, estimated restoration times, and liaise with providers for localized inquiries.
- Provide Mobile Command Centers, Connectivity Kits, and/or Site Survey Teams to assist in and facilitate open internet connectivity.
- Manage Wireless Priority Services (WPS) for State cell phones, Government Emergency Telecommunications Services (GETS) for State landlines, and Telecommunications Service Priority (TSP) for State network circuits.

ESF #3: Public Works and Engineering

ESF #3 can quickly and efficiently provide coordination, technical assistance, engineering expertise and debris and construction management to protect public works and critical infrastructure.

- Applies to pre-incident and post-incident assessments of public works and infrastructure, executing emergency contracts for life saving services, provide emergency repair and restoration of public works, infrastructure, and critical facilities.
- Supports flood control, and other water infrastructure systems, including drinking water and wastewater utilities.
- Provides assessment and emergency response support for water, wastewater treatment facilities, levees, dams, buildings, and bridges.

- This ESF can construct temporary critical facilities and provide demolition of immediate hazards to public health and safety.
- The Department of Environmental Conservation can review and authorize various emergency registrations/authorizations and general permits for materials management facilities.
 - Temporary emergency waste transporter permits can be authorized for the transport of regulated wastes such as raw sewage, septage, and sludge from a publicly owned treatment works (POTW), waste tires, waste oil, or industrial-commercial waste including hazardous and medical waste.
- The Department of Environmental Conservation can ensure that protected natural resources such as Rivers, Streams and Water bodies, Freshwater and Tidal wetland are protected during emergency response and recovery activities utilizing the emergency authorization and general permitting procedures
- The Department of Health can provide support for water contamination issues and potable water sourcing
- Coordinate inspections of damaged roadways, bridges, and rail lines.
- Transport the debris cleared from roadway to identified dump area.

ESF #4: Firefighting

ESF #4 coordinates response efforts in support of the detection and suppression of wildland, urban fires, and wildland/urban interface fires. In the event of an extreme heat event, cascading events may occur such as wildland fires as well as drought conditions. This ESF may be activated if the Safety and Security lifeline starts to decline. ESF #4 may be able to assist with the following:

- Provide support for incidents that exceeds local or county capacity.
- Provide support to local responders through resource tracking and technical assistance.
- Provide aerial fixed and rotary wing firefighting assets, as warranted.
- Coordinate fire personnel through the activation of the State Fire Mobilization and Mutual Aid Plan.
- Coordinate the use of heavy equipment (e.g., bulldozers) from other State agencies to assist in fire suppression efforts.

ESF #5: Information and Planning

ESF #5 provides support for situational information for decision makers and field-level responders. ESF #5 may be able to assist with the following:

- Through the NWS, provide technical analysis and review of current and projected weather forecast models.
- Through counties and ESF #8, monitor cooling center activity and status.
- Coordinate with personnel deployed for situational reporting, awareness, and preparedness.
- Monitor and report on impacts of critical infrastructure through ESFs and open source.
- Report on the impact to the energy grid and status of power restoration through ESF #12.
- Monitor drought conditions through DEC and NWS; both may issue public messaging of concerns (e.g., watches, warnings).
 - Monitor potential stress on water supplies and recreational water bodies.

- Prompt meetings of the NYS Drought Task Force, led by DHSES/OEM and supported by multiple agencies.
- Track and monitor local governments issuance of restrictions on water use for non-essential uses.

ESF #6: Mass Care, Emergency Assistance, Housing, and Human Services

ESF #6 coordinates or assists the State's response efforts for mass care, emergency assistance, housing, and human services for the affected areas and vulnerable populations. This ESF may be activated if the status of the Food, Water, and Sheltering Lifeline begins to decline. ESF #6 may be able to assist with the following:

- Identify and coordinate assistance for the vulnerable populations that are at greatest risk.
- Assist in identifying and providing State facilities that could be used as temporary cooling centers.
 - Sites are typically determined locally and often utilize public spaces (e.g., libraries, community centers, churches).
 - The NYS Mass Care Annex outlines emergency shelter resources which include cooling centers addressed in Attachment 2 of the Mass Care Annex.
- Provide guidance on heating and cooling assistance programs.
 - Home Energy Assistance Program (HEAP) includes cooling assistance.
- Provide shelter locations (in event of loss of power or other extenuating circumstances)
 - Typically determined locally (accessible, sized for need, power, cooling).
- Assist in providing feeding and hydration services, and distribution of necessary support items.
- Where possible, coordinate with non-government and community-based organizations that provide services to vulnerable populations, to distribute extreme heat risk information and outreach.
- Individuals responding to cooling shelters may be accompanied by service animals or pets. ESF #6 will work in conjunction with ESF #11 to temporarily house pets where possible if space allows.

ESF #7: Logistics

ESF #7 can assist in managing donations, locating, procuring, and issuing resources, as well as provide continued support for response and recovery efforts during, and following the disaster.

Through contacts and state stockpiles, ESF #7 may be able to assist with the following:

- Coordinate requests for assistance and provide logistical support from other State agencies, warehouse locations, and/or contracted vendors.
- Assist with transportation of available resources, as necessary.
- Determine stockpile capacity and anticipation of additional warehousing needs, to include centralized and available locations.
- Coordinate with DOT to provide generators for major traffic lights.
- Identify, procure, and mobilize needed supplies early, and identify regions where both staff and resources may need to be pre-positioned.
- Coordinate the acquisition, preparation, and delivery of water buffalos, generators, and bottled water, and ice.

ESF #8: Public Health and Medical Services

ESF #8 assists with coordinating measures to be taken regarding the impacts extreme heat may have on public health and medical services. This may include fatalities and medical services operations. ESF #8 may be activated in the event that the status of the Health and Medical lifeline begins to decline. ESF #8 may be able to assist with the following:

- Define and inform groups that will receive priority access to supplies. These groups include the elderly and vulnerable populations as previously defined.
- Assist in coordinating medical assistance for those suffering from heat-related illnesses, such as heat cramps, heat exhaustion, and heat stroke.
- Assist the local health departments in assessing potential or actual public health hazards presented by extreme heat.
- Provide public information for individuals taking certain medication that can have altered effects when exposed to extreme heat.
- Facilitate the DOH Cooling Center Finder tool with county governments.
- Report on heat-related illnesses through syndromic surveillance and coordination with local health departments (LHDs).
- Provide subject matter expertise, guidance, coordination, assessment, and support in heat-related safety concerns.
- Coordinate with ESF #12 to assist residents with life safety equipment.

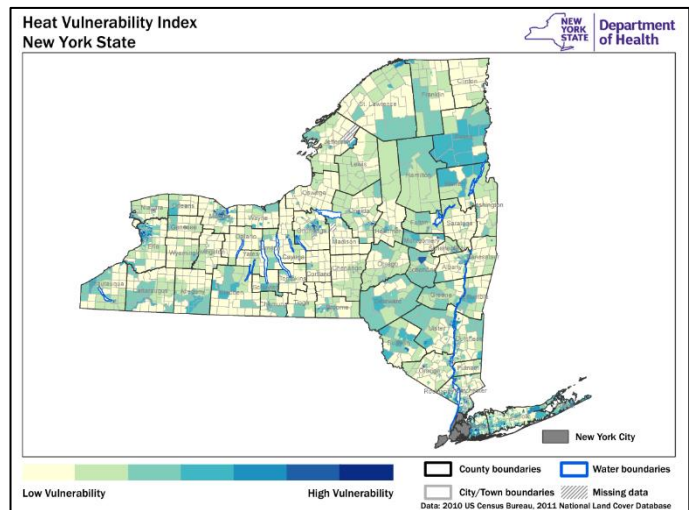


Figure 5-NYS DOH Heat Vulnerability Index Map. Updated July 2017
https://www.health.ny.gov/environmental/weather/vulnerability_index/docs/nys_hvi.pdf

ESF #11: Agriculture and Natural Resources

ESF #11 can assist in supporting the agricultural community, to include the food supply as well as livestock. ESF #11 may monitor harmful algae and air pollutants that can proliferate during times of extreme heat. ESF #11's mission includes the protection of natural, historical, and cultural resources and properties. This ESF may be activated if the status of the Food, Water, and Sheltering lifeline begins to decline. ESF #11 may be able to assist with the following:

- Monitoring Harmful Algal Blooms
 - DEC/DAM will monitor the Harmful Algal Blooms as they may impact public access to recreational water bodies.
- Ensure the safety of food products harvested during times of extreme heat.
- Work through local Cooperative Extensions to coordinate protective actions for farm workers, migrant workers, and livestock from heat-related illness and other negative health impacts. This includes issuing guidance and recommendations to livestock owners (i.e., Providing plenty of water, keeping animals out of direct sunlight, etc.)
- Coordinating with the USDA farm emergency board for livestock support, sheltering, and feeding.

ESF #12: Energy

ESF #12 can assist in facilitating restoration of damaged energy systems and their components. Other energy systems may be impacted if there are interdependencies with the power grid. This ESF may be activated if the status of the Energy Lifeline begins to decline. ESF #12 may be able to assist with the following:

- The Department of Public Service (DPS) is the lead for electrical systems emergencies.
- Provide data and forecasting that may assist the Governor in issuing a Heat Emergency.
- ESF #12 agencies do not possess any stockpiles, supplies, or specialized equipment beyond the Strategic Fuel Reserve.
- Coordinate the implementation of the Energy Emergency Annex to the State CEMP, as required, to support the response.
- Report on system stress that may result in brownouts or blackouts.
- Determine restoration prioritization based on life safety and critical infrastructure:
 - Report on utility companies' effort to assist residents with life safety equipment.
 - Report on utility companies' communication related to the effects of extreme heat including reduced energy consumption, etc.
- Monitor the suspension of electrical shut off during an extreme heat event.

ESF #15: External Affairs

ESF #15 coordinates the distribution of all public information related to the incident including emergency public information. This ESF may be activated to assist in the dissemination of public information. ESF #15 may be able to assist with:

- Monitor or issue social media posts, briefings, pamphlets, radio and/or television broadcasts and utilize call centers to disseminate information, such as early warning to the public. Ensure that all levels of government adhere to New York State language access policies when issuing public information.
- Monitor or issue public messaging and/or restrictions relative to, but not limited to, outdoor fires, and electrical and water conservation.
- Provide risk communications on recognizing the warning signs of heat-related illnesses (ie. heat cramps, heat exhaustion, heat stroke).
- Provide staff members interfacing directly with the public with a standard resource sheet that can be used to inform of an anticipated extreme heat event and point them to available resources.
- Coordinate with local governments when issuing any method of public information dissemination.
- Provide public information regarding available resources and actions that should be taken by the public.
- Integration of health and human services call center operations to assist the public with answers to questions and guidance during extreme heat events.

Section IV: Recovery

A. Overview

Dependent on the significance and consequences of an extreme heat event, the response to an emergency or disaster may be relatively short or could extend for some time. As the scope of the response begins to shift to a recovery process, the response structure that is in place will change. When this transition occurs, operational components may be demobilized.

The State CEMP outlines the disaster relief funding and programs that would be applicable for an incident of this type. Included are provisions for Public Assistance (PA) and Individual Assistance (IA), which would aid in supporting government response operations and provide some recovery assistance for individuals and their families and businesses.

As the recovery process begins or the extreme heat subsides, requests for State resources will begin to diminish. When the multi-agency, centralized State coordination focus is no longer required, the State EOC will develop and implement a demobilization plan to transfer responsibilities and suspend unnecessary field and agency operations. The State EOC Planning Section will respectively develop a scalable demobilization plan for the release of appropriate components. As the need for full-time interagency coordination at the State EOC ceases, plans for selective release of state resources, demobilization, deactivation, and closeout are developed. The State EOC may remain operational at reduced staffing levels to ensure long term missions are completed and to maintain situational awareness to support additional response operations.

Recovery following a disaster is considered by DHSES if conditions warrant pursuing relief. It includes steps to apply for federal disaster funding for the public sector and individuals. Thresholds need to be met to obtain disaster relief and are noted in Volume 2 of the CEMP.

B. Demobilization of the State Response

When the State response effort is deactivated and transitioned back to day-to-day operations, specific procedures for demobilization will be followed to ensure proper record keeping and handling of contracts as well as recovery of deployed equipment and materials. Demobilization is planned, coordinated, and executed to ensure that all level of government response and recovery personnel are maintained at a state of readiness commensurate to operational field response and recovery operations. Actions may include:

- Relaxing traffic and access control points.
- Consolidating/closing of cooling centers.
- Conducting ongoing repairs and environmental remediation activities.
- Social media, press briefings, and other mass notification platforms can be utilized to disseminate ongoing information to the public such as the return to normal power use.
- Where applicable, assess ongoing need for mutual aid and downsize/demobilize activated mutual aid units, as needed.
- Estimating the overall impact on the State, including mortality, financial impacts, and the disaster recovery mechanisms that can support the general public.

Attachment 1

Excessive Heat Kinetic Impacts Guide

EXCESSIVE HEAT RESPONSE

KINETIC IMPACTS	KEY CONSIDERATIONS	KEY NEEDS
Human Needs & Services	<ul style="list-style-type: none"> Most vulnerable are at greatest risk (disabled, elderly, children). <ul style="list-style-type: none"> Heat-related illnesses – Heat cramps, heat exhaustion, heat stroke: https://www.weather.gov/safety/heat-illness accessed June 2023. Cooling Centers: Determined locally, often public spaces (e.g., libraries, community centers). Heating/cooling assistance programs, e.g., Home Energy Assistance Program (HEAP) includes Cooling assistance (https://otda.ny.gov/programs/heap/#cooling-assistance accessed June 2023). Shelter locations: (e.g., in event of loss of power) Typically determined locally (accessible, sized for need, power, cooling). Social media, briefings and call centers can be utilized to disseminate information. 	<ul style="list-style-type: none"> Counties/Cities have local programs Counties/State can extend access to pools, beaches. DOH facilitates Cooling Center “finder” resource.
Electrical System Stress & Power Interruptions	<ul style="list-style-type: none"> Electrical utilities may request reduced usage or voltage reductions during peak demand times. System stress may result in brownouts or blackouts. Restoration prioritization based on life safety and critical infr.: <ul style="list-style-type: none"> Hospitals/Nursing Homes required to have generators. DOT has generators for major traffic lights. Utilities have lists of residents with life safety equipment. Other CI to consider: Schools; Public Transit; Communications; Food/Agriculture; Water/Wastewater. Utility mutual aid support from other states/Canada. 	<ul style="list-style-type: none"> Generators and light towers Dry ice and water
Transportation System: Customer Support and Potential Damage	<ul style="list-style-type: none"> Road and bridge impacts (Potential damages from heat that may result in closures and require emergency repairs). Rail may be impacted by extended heat (expansion, buckling). Aviation impacts (runway buckling, delays related to local and out of region excessive-heat issues). Electrical interruptions may alter or decrease electric-dependent services. (e.g., traffic lights, subway and rail). 	<ul style="list-style-type: none"> VMS boards, barriers. Public safety/transp. personnel MTA diesel locomotives Transportation agencies' procedures/resources to support system users
Others: Drought, Harmful Algal Blooms, Wildfires	<p>Extended periods of excessive heat and limited rainfall can contribute to:</p> <ul style="list-style-type: none"> Drought conditions monitored by DEC and NWS; both may issue public messaging of concerns (e.g., watches, warnings). <ul style="list-style-type: none"> Potential stress on water supplies and recreational water bodies. NYS Drought Task Force: led by DEC, DHSES-OEM supports. Local governments may issue restrictions on water use for “non-essential uses” Harmful Algal Blooms (HABs) monitored by DEC/DAM and may impact public access to recreational water bodies. Wildfires increase with dry conditions; public messaging and/or restrictions on outdoor fires may be leveraged to mitigate. 	<ul style="list-style-type: none"> Wildfire fighting may be resource intensive (personnel, equipment) Law enforcement Aviation assets such as helicopter mounted fire suppression buckets

APPENDIX A - ESF SUPPORT FOR COMMUNITY LIFELINES

Food, water, sheltering: <ul style="list-style-type: none"> Mass Care - ESF #6 (Mass Care): DHSES-IA, ESF #8 (Health): DOH Food/Water - ESF #6 (Mass Care): DHSES-IA Energy (Power & Fuel) <ul style="list-style-type: none"> Fuel - ESF #12 (Energy): DPS; NYSEDA Utilities - ESF #12 (Energy): DPS; NYSEDA 	Health and Medical <ul style="list-style-type: none"> Public Health/Disease - ESF #8 (Health): DOH Communications <ul style="list-style-type: none"> Emergency Comms. - ESF #2 (Comms.): OIEC Transportation Interruptions - ESF #1 (Transp.): DOT <ul style="list-style-type: none"> Infrastructure - ESF #1 (Transp.): DOT Includes roads, rail, mass transit, maritime, pipelines
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Attachment 2

Glossary

AC	Air Conditioning
C	Celsius
COOP	Continuity of Operations Plan
CEMP	Comprehensive Emergency Management Plan
DAM	Department of Agriculture and Markets
DEC	Department of Environmental Conservation
DHSES	Division of Homeland Security and Emergency Services
DOCCS	Department of Corrections and Community Supervision
DOH	Department of Health
DPC	Disaster Preparedness Commission
DPS	Department of Public Service
EHAPWG	Extreme Heat Action Plan Work Group
EPA	Environmental Protection Agency
ESF	Emergency Support Functions
F	Fahrenheit
HAB	Harmful Algal Blooms
HCR	New York State Homes and Community Renewal
HEAP	Home Energy Assistance Program
HSEEP	Homeland Security Exercise and Evaluation Program
HSPD-5	Homeland Security Presidential Directive-5
HVAC	Heating, Ventilation and Air Conditioning
HVI	Heat Vulnerability Index
IA	Individual Assistance
ICS	Incident Command System
MAC	Multi-Agency Coordination
MTA	Metropolitan Transportation Authority
NIMS	National Incident Management System
NWS	National Weather Service
NYCEM	New York City Office of Emergency Management
NYPA	New York Power Authority
NYSERDA	New York State Energy Research and Development Authority
NYSOFA	Office for the Aging
NYSP	New York State Police
OFPC	Office of Fire Prevention and Control
OGS	Office of General Services
OMH	Office of Mental Health
OTDA	Office of Temporary and Disability Assistance
PA	Public Assistance
SNAP-Ed	Supplemental Nutrition Assistance Program Education
State CEMP	State Comprehensive Emergency Management Plan
State EOC	Emergency Operation Centers
State OEM	Office of Emergency Management
SWC	State Watch Center